

**LIVESTOCK GROSS MARGIN (LGM)
LIABILITY/PREMIUM CALCULATIONS**
Edit Description

**Livestock Gross Margin (LGM)
(Insurance Plan Code 82)**

GROSS MARGIN GUARANTEE

$$\begin{aligned}
 \text{EXPECTED GROSS MARGIN} &= \frac{(\text{TARGET_MARKET_1} * \text{EXP_GROSS_MARGIN_1}) +}{(\text{field 7})} \frac{(\text{field 13})}{(\text{field 78})} \\
 &+ \frac{(\text{TARGET_MARKET_2} * \text{EXP_GROSS_MARGIN_2})}{(\text{field 124})} + \frac{(\text{TARGET_MARKET_3} *}{(\text{field 89})} \\
 &\text{EXP_GROSS_MARGIN_3}) + \frac{(\text{TARGET_MARKET_4} * \text{EXP_GROSS_MARGIN_4})}{(\text{field 940})} + \frac{(\text{field 146})}{(\text{field 104})} \\
 &+ \frac{(\text{TARGET_MARKET_5} * \text{EXP_GROSS_MARGIN_5})}{(\text{field 157})} + \frac{(\text{TARGET_MARKET_6} *}{(\text{field 112})} \\
 &\text{EXP_GROSS_MARGIN_6})}{(\text{field 168})} \\
 \text{GROSS_MARGIN_GUAR} &= \text{EXPECTED GROSS MARGIN} * \text{COVERAGE_LEVEL} \\
 (\text{field 179}) & \quad (\text{Internal}) \quad (\text{Internal})
 \end{aligned}$$

LIABILITY

$$\text{LIABILITY} = \text{GROSS_MARGIN_GUAR} \\
 (\text{field 1820}) \quad (\text{field 179})$$

SIMULATED LOSSES

$$\begin{aligned}
 \text{SIMULATED GROSS MARGINS}(i) &= \frac{(\text{FIRST_MONTH_GROSS_MARGIN_DRAW}(i))}{(\text{internal})} * \\
 &\frac{(\text{TARGET_MARKET_1})}{(\text{field 7})} + (\text{SECOND MONTH GROSS MARGIN DRAW}(i) * \\
 &\text{TARGET_MARKET_2}) + (\text{THIRD MONTH GROSS MARGIN DRAW}(i) * \\
 &(\text{field 78}) \\
 &\text{TARGET_MARKET_3}) + (\text{FOURTH MONTH GROSS MARGIN DRAW}(i) * \\
 &(\text{field 89}) \\
 &\text{TARGET_MARKET_4}) + (\text{FIFTH MONTH GROSS MARGIN DRAW}(i) * \\
 &(\text{field 940}) \\
 &\text{TARGET_MARKET_5}) + (\text{SIXTH MONTH GROSS MARGIN DRAW}(i) * \\
 &(\text{field 104}) \\
 &\text{TARGET_MARKET_6}) \\
 &(\text{field 112})
 \end{aligned}$$

Note: (i) = 1,2,..., 25000

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$$\text{SIMULATED_LOSSES} = \sum (\text{MAX} (\text{GROSS_MARGIN_GUAR} - \text{SIMULATED GROSS MARGINS}(i), 0))$$

(field 1924) (field 1720) (Internal)

Note: only use simulated gross margins greater than zero in calculation

TOTAL PREMIUM

$$\text{TOTAL_PREMIUM} = 1.03 * (1/25,000) * \text{SIMULATED LOSSES}$$

(field 202) (field 1924)

PRODUCER PREMIUM

$$\text{PRODUCER_PREMIUM} = \text{TOTAL_PREMIUM}$$

(field 268) (field 202)

Note: Subsidy not applicable for LGM.

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Tag	No.	Picture	Rounding	Description
<TARGET_MARKET_1>	7	9(05)	whole number	Number of swine the insured expects to market in the first month of the insurance period (Feb. or Aug.).
<EXP_GROSS_MARGIN_1>	13	(+ / -) 9999.9999	per ADM	Expected Gross Margin per swine for First Month from ADM L Suffix P. This is a signed field. Only the negative symbol (-) will appear if applicable.
<TARGET_MARKET_2>	78	9(05)	whole number	Number of swine the insured expects to market in the second month of the insurance period (Mar. or Sept.).
<EXP_GROSS_MARGIN_2>	124	(+ / -) 9999.9999	per ADM	Expected Gross Margin per swine for Second Month from ADM L Suffix P. Only the negative symbol (-) will appear if applicable.
<TARGET_MARKET_3>	89	9(05)	whole number	Number of swine the insured expects to market in the third month of the insurance period (Apr. or Oct.).
<EXP_GROSS_MARGIN_3>	135	(+ / -) 9999.9999	per ADM	Expected Gross Margin per swine for Third Month from ADM L Suffix P. Only the negative symbol (-) will appear if applicable.
<TARGET_MARKET_4>	910	9(05)	whole number	Number of swine the insured expects to market in the fourth month of the insurance period (May or Nov.).
<EXP_GROSS_MARGIN_4>	146	(+ / -) 9999.9999	per ADM	Expected Gross Margin per swine for Fourth Month from ADM L Suffix P. Only the negative symbol (-) will appear if applicable.
<TARGET_MARKET_5>	1011	9(05)	whole number	Number of swine the insured expects to market in the fifth month of the insurance period (June or Dec.).
<EXP_GROSS_MARGIN_5>	157	(+ / -) 9999.9999	per ADM	Expected Gross Margin per swine for Fifth Month from ADM L Suffix P. Only the negative symbol (-) will appear if applicable.
<TARGET_MARKET_6>	112	9(05)	whole number	Number of swine the insured expects to market in the sixth month of the insurance period. (July or Jan.)

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<EXP_GROSS_MARGIN_6>	168	(+ / -) 9999.9999	per ADM	Expected Gross Margin per swine for Sixth Month from ADM L Suffix P. Only the negative symbol (-) will appear if applicable.
<EXPECTED GROSS MARGIN>	Internal	9(10).99	dollars and cents	Sum of (Target Marketings by month times Expected Gross Margins by month).
<COVERAGE_LEVEL>	Internal	9.999999	NA	Coverage level submitted under the crop policy section.
<GROSS_MARGIN_GUAR>	179	9(10).99	dollar and cents	Expected Gross Margin times Coverage Level.
<LIABILITY>	1820	9(10)	nearest whole dollar	Gross Margin Guarantee to nearest whole dollar.
FIRST MONTH GROSS MARGIN DRAW(i)	Internal	(+ / -) 999.999	per ADM	First Month Gross Margin Draw from ADM L Suffix C.
SECOND MONTH GROSS MARGIN DRAW(i)	Internal	(+ / -) 999.999	per ADM	Second Month Gross Margin Draw from ADM L Suffix C.
THIRD MONTH GROSS MARGIN DRAW(i)	Internal	(+ / -) 999.999	per ADM	Third Month Gross Margin Draw from ADM L Suffix C.
FOURTH MONTH GROSS MARGIN DRAW(i)	Internal	(+ / -) 999.999	per ADM	Fourth Month Gross Margin Draw from ADM L Suffix C.
FIFTH MONTH GROSS MARGIN DRAW(i)	Internal	(+ / -) 999.999	per ADM	Fifth Month Gross Margin Draw from ADM L Suffix C.
SIXTH MONTH GROSS MARGIN DRAW(i)	Internal	(+ / -) 999.999	per ADM	Sixth Month Gross Margin Draw from ADM L Suffix C.
SIMULATED GROSS MARGINS(i)	Internal	9(10).99	dollars and cents	Five Six month Simulated Gross Margins(i) is the sum of (Gross Margin Draws(i) times Target Marketings by month).
<SIMULATED_LOSSES>	1924	9(10).99	dollars and cents	Sum of (MAX (Gross Margin Guarantee minus Simulated Gross Margins(i)), 0).
<TOTAL_PREMIUM>	202	9(10)	nearest whole dollar	The result of 1.03 times (1/25,000) times Simulated Losses.
<PRODUCER_PREMIUM>	268	9(10)	nearest whole dollar	Producer Premium equals Total Premium.

Note: (i) = 1,2,..., 25000